

Rainforest Friends

熱帶雨林的朋友

Module Overview

Target Language: English	Grade Level: K-1
Proficiency Level: Junior Novice Low	
Summary: Students will discover the uniqueness of a rainforest and the life forms within.	
Enduring Understanding: A rainforest is a unique environment with a variety of life forms.	
Essential Questions: What is a rainforest? What can you find in the rainforest? Where can you find a rainforest?	

Standards Targeted	
5C – World Language Standards	5E – STEM Standards
<p>Communication</p> <ul style="list-style-type: none"> • Answer simple questions related to the rainforest (1.1) • Interpret basic vocabulary of rainforest life forms (1.2) • Present wildlife that lives in the different layers of the rainforest (1.3) <p>Cultures</p> <ul style="list-style-type: none"> • Use vocabulary and basic structures to increase graphing concepts in mathematics (3.1) <p>Connections</p> <p>Students access new information and reinforce existing knowledge of other content areas through the target language (3.1)</p>	<p>1.SF Structure and Function</p> <p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> • Observe and analyze the external structures of animals to explain how these structures help the animals meet their needs. • Ask questions to define a problem and design an object that replicates the function (use) of a structure (part) present in an animal or a plant to address the problem. <p>Technology</p> <ul style="list-style-type: none"> • 3.A.1 Create a computer-generated rainforest animal <p>Math Common Core</p> <ol style="list-style-type: none"> 1. MD. 4 Display data regarding the likes and dislikes of the class about rainforest animals in a circle graph 1. MD.4 Answer questions related to the circle graph

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Knowledge: Students will know...	Skills: Students can...
Vocabulary <ul style="list-style-type: none"> Use appropriate vocabulary to describe life in the rainforest. Expressions and patterns <ul style="list-style-type: none"> How to make simple statements 	<ol style="list-style-type: none"> Tell which animals live in different levels of the rainforest. Tell the differences between the layers of the rainforest. Graph data regarding likes and dislikes in relations of animals of the rainforest. land on Earth

Module Duration and Lessons: Five 30-minute lessons

Lesson 1 – What is a rainforest? 什麼是熱帶雨林?

Lesson 2 – Where Does Little Coquí Live? 小青蛙在哪兒?

Lesson 3 – Who Are My Friends? 我的朋友是誰?

Lesson 4 – Who Is This New Creature? 它是誰?

Lesson 5 – Our Favorite Rainforest Animal 我們熱帶雨林的朋友。

Performance Assessment:	What culminating performance tasks will provide evidence that students have achieved the program learning objectives? Consider providing opportunities for students to be assessed for each mode of communication through interpretive, interpersonal and presentational performance tasks. However, for students at this age group, assessment may be integrated.
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Materials/Resources

- Frog: puppet or stuffed animal
- Sound clips of the rainforest
 - <http://www.rainforesteducation.com/FunNGames/canuseethem.htm>
- Choose one way to simulate humidity:
- Small baby humidifier
- Prior to lesson, cover plants with cellophane supported by straws placed into the soil. Water plant well and place it in sunlight.
- Microwave a glass of water.
- Sound bites:
 - <http://www.rainymood.com/>
- Rainmaker – Instructions:
 - http://www.ehow.com/how_4884442_make-rainmaker-musical-instrument.html
- Paper towel tubes, pre-cut paper plates, tape, and rice
- Pre-made labels for each level of the rainforest (should include visual cues and written vocabulary)
- Large poster of the rainforest that depicts the four layers of the rainforest or a self-made mural (WS.2)
- Large pictures of a parrot, a snake, a monkey, and a jaguar
- Small pictures of a parrot, a snake, a monkey, and a jaguar (enough for all students)
- Large animal picture cards
- Build your own wild self:
 - <http://www.buildyourwildself.com>
- Worksheet 1a
- Worksheets 2a, 2b, 2c
- Worksheet 3a
- Worksheet 4a
- Rainforest Journal (Included as separate PDF file)

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STEM Background for Teachers:

Rainforests are dense forests that are found in tropical areas around the world, which receive at least 160 inches of rain each year. Humidity is always 77-88%. Tropical rainforests are in South America, Africa, and Southeast Asia. The temperature is almost always very warm (ranging from 68°F at night to 93°F during the day) allowing plants grow all year long. Trees are broad-leaved and evergreen, and the vegetation tends to grow in four very thick layers: undergrowth (forest floor), intermediate trees and shrubs (understory), very tall trees (canopy), and a few extremely tall trees that hover as much as 200 feet above the forest floor (emergent).

Even though only 6% of Earth's surface is covered by tropical rainforests, they contain nearly 75% of all known species of animals and vegetation. As many as 30 million species of plants and animals call the rainforests home. Many things that we use come from the rainforests. Nearly two thirds of all medicine originate from the plants located here. Other useful things that come from rainforests include chocolate, sugar, cinnamon, rubber, and pineapples.

Plants: Although this module does not include specific rainforest vegetation in its lessons, it is important to understand that more than two thirds of the world's plant species are found in the tropical rainforests—plants that provide shelter and food for rainforest animals and take part in the gas exchanges which provide much of the world's oxygen supply.

Rainforest plants live in a warm, humid environment that allows an enormous variation rare in more temperate climates; some, like the orchids, have beautiful flowers adapted to attract the profusion of forest insects.

Animals: There are too many types of animals living in the rainforests to address each one individually. However, some of the more common animals are monkeys, frogs, birds, and snakes.

The Coquí, highlighted in this module, is a species endemic to Puerto Rico, the Virgin Islands, Central and South America, and Hawaii. This frog-like creature belongs to the *Eleutherodactylus* genus, which in Greek means “free toes.”

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Lesson 1 - What Is a Rainforest?

什麼是熱帶雨林？

Lesson 1 of 5		Duration: 30 Minutes
<i>Objectives</i>	<p>I Can:</p> <p>Oral language:</p> <ul style="list-style-type: none"> Using pictures of various geographic regions, students will be able to tell if the regions are humid or not. <p>Literacy:</p> <ul style="list-style-type: none"> Students will recognize the words 潮濕，不潮濕 <p>STEM and Other Subject Areas:</p> <ul style="list-style-type: none"> Students conclude a rainforest is 熱，潮濕， 	
<i>Performance Assessment Task</i>	Students will identify particular weather patterns (rain and humidity) that distinguish a rainforest from other geographic regions.	
<i>Vocabulary and Expressions</i>	<p>Recycled</p> <p>Classroom commands:</p> <ul style="list-style-type: none"> 我的名字是 快樂不快樂 	<p>New</p> <p>熱帶雨林 潮濕 不潮濕 植物 住在 你住在 熱 青蛙 下雨 Sentence Pattern 常常</p>
<i>Materials/Resources</i>	<ul style="list-style-type: none"> Frog puppet or stuffed animal Sound clips of the rainforest http://www.rainforesteducation.com/FunNGames/canuseethem.htm Choose a way to simulate humidity, such as: <ul style="list-style-type: none"> a small baby humidifier plants covered with cellophane or plastic wrap supported by straws placed into the soil. Water plant well and place in sunlight prior to lesson. microwave a container of water Pictures for different geographic regions as related to climate (Worksheet 1a) <ul style="list-style-type: none"> One enlarged set for teacher demonstration. Smaller sets in envelopes for student use (one envelope per student) 	

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	<ul style="list-style-type: none"> ○ Signs: Humid/ Not Humid ○ Paper folded vertically with words “Humid/ Not Humid” as headers for each column (one per student)
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Key Elements	Lesson 1 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> • Object, event or question used to engage students. • Connections facilitated between what students know and can do 	<p>Introduction to the Rainforest 介紹熱帶雨林</p> <p>Prior to lesson, designate a corner of the classroom as a rainforest. Include plants, source of humidity, and rainforest sounds. This should be hidden as best as possible from students. If you do not already have other plants in the classroom, be sure there are additional plants around the room. Have the frog puppet (Little Coquí) at hand, but hidden from students.</p> <p>T: (Making the sounds of the coquí. Excitedly jump up and produce hand-puppet or other depiction of Little Coquí.) 早安，小青蛙，小朋友們，這是小青蛙。小朋友們，跟我們的新朋友小青蛙問好。(Speaking to the Little Frog) 你好，小青蛙。</p> <p>S: 你好，小青蛙。</p> <p>P: 小朋友好。</p> <p>T: (To puppet) 小青蛙，你好嗎？你為什麼不快樂？</p> <p>P: 我不快樂是因為我想家，我想我的朋友，我想那里的植物，我想雨。(Begins to cry)</p> <p>T: 植物和雨？哪兒有植物和雨？小青蛙，你住在哪兒？</p> <p>(Puppet sobs louder)</p> <p>T: (Louder) 小青蛙，你住在哪裡？</p> <p>(Puppet sobs louder)</p> <p>T: (To class) 讓我們一起問小青蛙。</p> <p>S and T: 小青蛙，你住在哪裡？</p> <p>(Puppet sobs louder still) T: 讓我們再問它一次。</p> <p>S and T: 小青蛙，你住在哪裡？</p> <p>P: (Still sobbing) 我住在熱帶雨林。</p> <p>T: 小青蛙，熱帶雨林常常下雨嗎？</p> <p>P: 是的，熱帶雨林很熱，常常下雨，那兒也有很多植物。</p> <p>T: 植物？我們這裡也有植物。你看，這兒有一棵植物。(To class) 還有哪兒有植物？(Calls on volunteers to point out another plant) 這個也是。嗯，很好。是的，這是植物。還有哪兒有植物？對，這也是。(Hesitates, to allow students to supply the word) 對，這也是植物 (Continue with a few more volunteers.)</p> <p>T: 熱帶雨林常常下雨，而且有很多植物。熱帶雨林是不是非常的潮濕？</p> <p>P: 對，熱帶雨林常常下雨，有很多的水，很潮濕，。</p> <p>T: 我們的教室裏也有個小小的熱帶雨林，有很多的水，也很潮濕。</p> <p>T: (Pointing to the classroom “rainforest”) 你看那是什麼？(Pointing to plants. If no students respond) 那不是植物嗎？</p> <p>S: 是的，那是植物。</p>

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Key Elements	Lesson 1 Procedures
	<p>T: 還有呢？ (Allowing hand to get damp with humidity) 這是什麼？ S: 這是水。</p> <p>T: (Gather students near the source of humidity allowing them to experience and feel humidity for themselves.)</p> <p>P: 熱帶雨林常常下雨，有很多水，非常潮濕。</p> <p>T: 小朋友，請你跟我一起唸 (with action and making this like a chant)：熱帶雨林常常下雨，有很多水，非常潮濕。</p> <p>S: 熱帶雨林常常下雨，有很多水，非常潮濕。 T: 常常下雨，非常潮濕。</p> <p>S: 常常下雨，非常潮濕。</p> <p>T&S: 熱帶雨林常常下雨，有很多水，，非常潮濕。</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> • Objects and phenomena are explored. • Hands-on activities, with guidance. 	<p>Humid / Not Humid 潮濕/不潮濕</p> <p>T: (Having students explore the difference between the humid air in the “rainforest” and the dry air outside the “rainforest”) 這兒，很潮濕。這兒，不潮濕。</p> <p>T: (To student with hands in the “rainforest”) 这儿是熱帶雨林，熱帶雨林潮濕嗎？</p> <p>S: 潮濕。</p> <p>T: (To student with hands outside the “rainforest”) 那里不是熱帶雨林，那里潮濕嗎？</p> <p>S: 不潮濕。</p> <p>T: (To the puppet) 小青蛙，我們知道熱帶雨林常常下雨，很潮濕。有很多的樹木/植物，還有呢？ (Pantomime feeling hot and fanning) P: 很熱。</p> <p>T: 对，熱帶雨林常常下雨，非常潮濕。有很多植物，而且很熱。来，小朋友，我们一起说。</p> <p>T/S: 熱帶雨林常常下雨，非常潮濕。有很多植物，而且很熱。</p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> • Students explain their understanding of concepts and processes. • New concepts and skills are introduced as conceptual clarity and cohesion are 	<p>Geography and Humidity 地理和湿气 (潮湿)</p> <p>T: 小朋友，我們到小青蛙的家去看看。誰記得小青蛙的家在哪儿？</p> <p>S: 熱帶雨林。</p> <p>T: 誰有熱帶雨林的圖片？我們來看看熱帶雨林裏是不是有很多的植物，而且來看看那里是不是非常潮濕，非常熱。</p> <p>T: (Introducing the sign of Humid 潮濕 and Not Humid 不潮濕. Ask students to repeat a few times to make sure students recognize the signs/words.) 你们看，这是“潮湿”，这是“不潮湿”。</p> <p>T: (Showing pictures of different geographic regions Worksheet 1a) 这儿看起來潮濕嗎？</p> <p>S: (Answer accordingly)</p> <p>T: (Putting sign “Humid” and “Not Humid” near the rainforest and another area nearby) 我們把熱帶雨林的圖片跟潮濕放在一起。(Help students sort the pictures accordingly.)</p>

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sought.	<p>T: 這個地方看起來潮濕嗎？嗯，不潮濕，我們放在這裡。(Point out appropriate sign and have students repeat)</p> <p>S: 是的，非常潮濕/不，不潮濕。</p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> Activities allow students to apply concepts in contexts, and build on or extend understanding and skill. 	<p>Where Does Little Coquí Live 小青蛙住哪儿?</p> <p>T: (Pointing to the classroom “rainforest”) 熱帶雨林潮濕不潮濕？ S: 潮濕。</p> <p>T: (Pointing to all the pictures that have been sorted.) 那張照片是小青蛙的家，熱帶雨林嗎？我們怎麼知道的？</p> <p>S: (Possible responses) 熱帶雨林很潮濕，常常下雨，很熱，有很多植物。(Prompt as necessary, but give students a chance to remember.)</p> <p>T: (Looking at one picture at a time, ask guiding questions, such as “Is it hot? Does it have plants? Is it very humid? Does it rain and rain? The final picture should be the rainforest picture that meets all the criteria.)</p> <p>T: (To puppet) 小青蛙，這是熱帶雨林嗎？这是你住的地方吗？ P: 是的，這是我住的地方；熱帶雨林, 很熱，很潮濕，有很多植物。你們這兒呢？這兒熱不熱？潮濕不潮濕？有沒有很多植物？</p> <p>T: 小青蛙，你回家了，你快乐吗？小朋友，我们来问小青蛙：小青蛙，你回家了，你快乐吗？</p> <p>S: 小青蛙，你回家了，你快乐吗？</p> <p>P: 快乐，我回家了，我快乐了。</p> <p>Note : This would be a good place to introduce the Little Frog song to students. See the end of this lesson</p>

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Key Elements	Lesson 1 Procedures
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness. 	<p>Assessment of Geographic Regions and Humid/ Not Humid 評估：熱帶雨林的觀念和認得潮濕/不潮濕的字詞</p> <p>T: (Hold up pictures of rainforest and non-rainforest.) 小朋友，這是熱帶雨林嗎？ S: (Answer accordingly). T: (Move on to allow students to say 這是熱帶雨林 or 這不是熱帶雨林. Invite students to answer individually.) T: (Draw on board two columns labeled “潮濕/不潮濕”. Distribute papers with columns titled “Humid” “Not Humid” and envelopes with cut up pictures from Worksheet 1a) 我們今天學到了什麼？ T: (Randomly picking up sample picture and approaching the 2 columns on the board. Pointing to “Humid” / “Not Humid” on the board.) T: 這地方看起來潮濕還是不潮濕？ S: (Answer accordingly.) T: 請把照片放在正確的地方。好極了，我們今天學到什麼是熱帶雨林，潮濕和不潮濕。來，我們再說一遍：小青蛙，住在熱帶雨林。熱帶雨林常常下雨，有很多水，非常潮濕。 S: 小青蛙，住在熱帶雨林。熱帶雨林常常下雨，有很多水，非常潮濕。</p> <p>Note: Invite students to sing the Little Frog song. This would be excellent assessment for this lesson</p>

Optional: 熱帶雨林歌 (改編)

Use the tune of “Brother John” or commonly known as “两只老虎” in Chinese.

熱帶雨林，熱帶雨林，很潮濕，很潮濕。

小青蛙住在那里，小青蛙住在那里，很快乐，很快乐。

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Teacher Reflection on Lesson 1 - <i>What Is a Rainforest?</i>	
What worked well?	
What did not work well?	
What would I do differently	
Other comments or notes	

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Lesson 2 - Where Does Mr. Coquí Live?

小青蛙住哪兒？

Lesson 2 of 5		Duration: 30 Minutes
<i>Objective</i>	Students will be able to identify and name the four layers of the rainforest: forest floor, understory, canopy, and emergent.	
<i>Performance Assessment</i>	Students will be able to use clues in order to infer the level of the rainforest where Little Coquí is hiding.	
<i>Expressions</i>	<p>Layers of the rainforest :</p> <p>露生層 樹冠層 中層 地面層</p> <p>樹</p> <p>雨/下雨</p> <p>祈雨棍</p> <p>太陽</p> <p>Reference:</p> <p>露生層 forest floor – little sun, plants, humid, large and small animals</p> <p>樹冠層 understory – little sun, plants, humid, large and small animals</p> <p>中層 canopy – more sun, different plants, small animals and birds</p> <p>地面層 emergent – sunny, new growth on tall trees, birds</p>	
<i>Materials/ Resources</i>	<p>Frog puppet</p> <p>Paper towel tubes, pre-cut paper plates, tape, and rice/bean.</p> <p>Rainmaker</p> <p>Premade labels for each level of the rainforest (should include visual cues and written vocabulary)</p> <p>Large poster of the rainforest that depicts the four layers of the rainforest, or a self-made mural (Worksheet 2a)</p> <p>http://www.srl.caltech.edu/personnel/krubal/rainforest/Edit560s6/www/whlayers.html</p> <p>http://www.kbteachers/weather-and-climate/the-rainforest-worksheet.html</p> <p>Picture of sun (Worksheet 2b)</p>	

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	Optional: Sound clips of rain - http://www.rainymood.com/
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Key Elements	Lesson 2 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> Object, event or question used to engage students. Connections facilitated between what students know and can do 	<p>Rain and the Rainforest 雨和熱帶雨林</p> <p>T: (Dampens the frog so that it feels wet to the touch) 小青蛙怎麼濕濕的？ T: 小青蛙，你怎麼濕濕的？ T: 小青我要我們眼睛閉起來。(Demonstrate eyes closed). T: (Using “rainmaker” or sound clip: http://www.rainymood.com/)這是什麼聲音？ S: 是水聲，是下雨聲。 T: 是的，是水聲。是下雨的聲音。(Using rainmaker or sound clip) (Use the rainmaker again, and chant) <i>It is raining!</i> 下雨，下雨了 (Signaling students to chant with you each time: <i>It is raining!</i>) T: (Pass around the rainmaker and encourage students to say “It’s Raining” each time the rainmaker plays.) T: (Guide students to sing the following, based on the melody “小雨滴”): http://www.youtube.com/watch?v=kR6202IdY3g&feature=related 滴答答，滴答答，雨兒下得稀哩嘩啦啦！小雨下呀，小雨下，熱帶雨林很潮濕，小雨下呀，小雨下，小青蛙呀濕透透！ T: (Pointing to classroom “rainforest”) 我們在這兒，我們現在和小青蛙在熱帶雨林。</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> Objects and phenomena are explored. Hands-on activities, with guidance. 	<p>Making Our Own Rainmakers 我们来造雨</p> <p>T: (Guide students to make their own “rainmaker” using a paper towel tube, Pre-cut cardboard circles, tape, and rice/bean.) Instructions found at: http://www.ehow.com/how_4884442_make-rainmaker-musical-instrument.html T: (Guide students to make the sound of rain.)在下雨嗎？ S: (using their rainmakers) 在下雨。 T: 熱帶雨林常常下雨嗎？ S: 熱帶雨林里常常下雨。</p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> Students explain their 	<p>Layers of the Rainforest 熱帶雨林有几层</p> <p>T: (show a picture of the side view of a cake cut into pieces) 熱帶雨林非常有意思。它像蛋糕一樣，有好几层。我們一起數數看，看看有幾層。 T: (Pointing to the levels of the rainforest, Worksheet 2a) 現在我們數數看，</p>

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Key Elements	Lesson 2 Procedures
<p>understanding of concepts and processes.</p> <ul style="list-style-type: none"> New concepts and skills are introduced as conceptual clarity and cohesion are sought. 	<p>熱帶雨林有幾層。 T and S: 一，二，三，四。 T: (Ask student pairs and individuals to count the layers.) S: 一，二，三，四。 T: 熱帶雨林有四層。每一層都有個名字。(Pointing to and naming each layer) 地面層，中層，樹冠層，露生層。 T: 小朋友，請你跟我一起說： T: 地面層(Crouching down and touching floor) S: 地面層(Crouching down and touching floor) T: 中層(Standing up and still bending over a little bit) S: 中層(Standing up and still bending over a little bit) T: 樹冠層(Standing up straight with arms spread over head like an umbrella) S: 樹冠層 (Standing up straight with arms spread over head like an umbrella) T: 露生層 (Standing up on toes and reaching up high) S: 露生層(Standing up on toes and reaching up high)</p> <p>T: (Using premade labels (Worksheet 2b), identify each layer of the rainforest. Have students repeat the name and the motion as you put them in place.) S: (Class repeats names of layers and/or makes the motions while students point to each layer of the rainforest, or hold up cards representing each layer): 地面層，中層，樹冠層，露生層。</p> <p>T: (After students have become familiar with the names of the four layers of a rainforest) Sings to students to the tune of "If you're happy and you know it clap your hands!" 熱帶雨林有四層，有四層， 熱帶雨林有四層，有四層， 地面層，中層，樹冠層，露生層。 熱帶雨林有四層，有四層。 T: 大家跟我一起唱，加上動作</p> <p>http://www.lessonplanspage.com/ssmdrainforestunitk-htm</p>

Rainforest Friends

熱帶雨林的朋友

Key Elements	Lesson 2 Procedures
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> Activities allow students to apply concepts in contexts, and build on or extend understanding and skill. 	<p>Sun and the Forest Floor 太陽和熱帶雨林</p> <p>T: (Holding the picture of the sun, Worksheet 2b, while looking out the window) 今天天氣怎麼樣？</p> <p>S: 今天是晴天</p> <p>T: 晴天有太陽嗎？ (if not, find a way to talk about the sun.) S: 有！</p> <p>T: 現在太陽可以照到地上嗎？</p> <p>S: 可以。</p> <p>T: (Holding the picture of the sun, Worksheet 2b, over the picture of the layers of the rainforest, Worksheet 2a) 在熱帶雨林中，太陽可以照到那一層？太陽可以照到露生層嗎？</p> <p>S: 可以，太陽可以照到露生層。</p> <p>Repeat with other layers of the rainforest.</p>
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness. 	<p>Name and describe the four layers of the rainforest. 說出熱帶雨林的四層</p> <p>T: 小朋友，我們都知道小青蛙住在熱帶雨林，可是你知道它住在哪一層？</p> <p>P: (Gives students a clue as to where he is.) 我住的地方是太陽光照不到的地方，我住在哪一層呢？</p> <p>T: 小青蛙住哪一層？小青蛙住在露生層嗎？ (Repeat with each layer from top down. When students answer, make comments such as too high 太高了。 Use the process of elimination, bring students to the conclusion that frogs live on the forest floor.)</p> <p>Ss: 小青蛙住在地面層。</p>

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Teacher Reflection on Lesson 2 - <i>Where Does Mr. Coquí Live?</i>	
What worked well?	
What did not work well?	
What would I do differently	
Other comments or notes	

Rainforest Friends

熱帶雨林的朋友

Lesson 3 - Who Are My Friends?

我的朋友是誰？

Lesson 3 of 5		Duration: 30 Minutes
<i>Objective</i>	Students can identify external features that allow animals to survive in the rainforest.	
<i>Performance Assessment</i>	Students will be able to identify and describe external features of various animals in the rainforest.	
<i>Expressions</i>	<p>我住在。。。 它是誰。。。？ 它是什麼？ 它是什麼顏色？ 它大不大？ 它小不小？ 它住在哪裡？ 它住在那一層？ 猴子 鸚鵡 蛇 美洲豹</p>	
<i>Materials/Resources</i>	<ul style="list-style-type: none"> ○ Large pictures of a parrot, a snake, a monkey, a coquí, and a jaguar ○ Small pictures of a parrot, a snake, a monkey, a coquí, and a jaguar (class set) 	

Key Elements	Lesson 3 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> • Object, event or question used to engage students. • Connections facilitated between what students know and can do 	<p>Little Coquí Is Sad Before class, distribute the cards for the parrot, the snake, the monkey, and the jaguar to four students in different parts of the class.</p> <p>Worksheet 3a</p> <p>T: (Holding puppet in a “dejected” manner) 小青蛙今天很不快乐，我們來問問它，它為什麼不快乐？ T: 小青蛙，你為什麼不快乐？ P: (Whispers to teacher) T: 小青蛙說，他不快乐是因為他找不到他的朋友。小青蛙的朋友在哪裡？我們來幫小青蛙找找它的朋友。</p>

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Key Elements	Lesson 3 Procedures
<p><i>Exploration</i></p> <ul style="list-style-type: none"> • Objects and phenomena are explored. • Hands-on activities, with guidance. 	<p>Where Are His Friends? 它的朋友在哪里？</p> <p>Where Is the Monkey? 小猴子在哪里？</p> <p>T: (Explores the rainforest looking for Little Coquí's friends in a rainforest mural or other medium.) 小青蛙，告訴我們，你的朋友是誰？</p> <p>P: 我的朋友是小猴子，是棕色的，不太大。我的朋友是棕色的小猴子。</p> <p>T: 小朋友們，你們有誰看到小青蛙的朋友小猴子 (Point to the monkey) 哦！你看，小猴子在那里。_____ [name of student] 請把小猴子帶到這裏來。</p> <p>P: 謝謝你們。嗨，小猴子，你好。</p> <p>T: 小青蛙，你知道小猴子住在那一層？</p> <p>Note: This is a good opportunity for students to review the four layers of a rainforest. Ask questions of different layers so students arrive at the correct answer: 樹冠層。</p> <p>P: 它住在樹冠層，_____ [name of student] 請把小猴子放在樹冠層。</p> <p>Where Is the Jaguar? 美洲豹在哪里？</p> <p>T: 小青蛙，還有誰是你的朋友？</p> <p>P: 美洲豹是我的朋友。它身上有金色和黑色。它還有斑點，它很大，也很強壯。</p> <p>T: 小朋友，誰看到小青蛙的朋友美洲豹？ (Point to the snake) 你看，小青蛙，你的朋友美洲豹在那裏。_____ [name of student]. 請把小青蛙的朋友美洲豹帶來這裏。</p> <p>P: 謝謝，這是我的朋友美洲豹。</p> <p>T: 小青蛙，美洲豹住在那一層？</p> <p>P: 它住在地面層。_____ [name of student]. 請把美洲豹放在地面層。</p> <p>Where Is the Snake? 蛇在哪里？</p> <p>T: 小青蛙，還有誰是你的朋友？</p> <p>P: 小花蛇。它是橘色的，它非常非常的長。(Or whatever colors are shown in the snake's picture).</p> <p>T: 小朋友，你們誰看到小青蛙的蛇朋友小花蛇？ (Point to the snake) 哦！你看，小青蛙，小花蛇在那裏。_____ [name of student]. 請把小青蛙的朋友小花蛇帶來這裏。</p> <p>P: 谢谢，它是我的朋友，小花蛇。</p> <p>T: 小青蛙，小花蛇住在哪一層？</p> <p>P: 它住在地面層和中層。_____ [name of student]. 請把小花蛇放在地面層和中層。</p> <p>Where Is the Parrot? 鸚鵡在哪里？</p> <p>T: 小青蛙，還有誰是你的朋友？ P: 我的朋友小鸚鵡。它身上有藍，綠，紅和黃色。(Or whatever colors of the picture). 它会飛，它不太大。</p> <p>T: 小朋友們，你們誰有看到小鸚鵡 (Point to the parrot) 哦！你看，小鸚鵡在那里。_____ [name of student] 請把小鸚鵡帶到這裏來</p> <p>P: 是的, 谢谢。它是我的朋友小鸚鵡。 T: 小青蛙，小鸚鵡住在哪一層？</p> <p>P: 小鸚鵡住在露生層。_____ [name of student] 請小鸚鵡放在露生層裏。谢谢。</p>

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Key Elements	Lesson 3 Procedures
<p><i>Explanation</i></p> <ul style="list-style-type: none"> Students explain their understanding of concepts and processes. New concepts and skills are introduced as conceptual clarity and cohesion are sought. 	<p>My Rainforest Journal 我的雨林日記</p> <p>T: (Ask students to identify the different animals by name and color. Have students place pictures of animals on the rainforest picture (Worksheet 2b).</p> <p style="padding-left: 40px;">它是誰？ 它是什么顏色？ 它有什么顏色？ 它住在哪裡？ 它大不大？ 它小不小？ 它長不長？</p> <p>Distribute Rainforest Journals (document is part of the online curriculum). Direct students to:</p> <ul style="list-style-type: none"> ➤ Select and color an animal in their Rainforest Journal. ➤ Trace the animal name. <p>Circulate throughout class to ask questions regarding the student's selected animal.</p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> Activities allow students to apply concepts in contexts, and build on or extend understanding and skill. 	<p>Share Your Journal</p> <p>T: 讓我們來看看我們的雨林日記 (Teacher asks various students to show the animals they colored)</p> <p style="padding-left: 40px;">它是誰？ 它是什么顏色？ 它住在哪裏？ 它大不大？ 它小不小？ 它長不長？</p> <p>Ask additional follow up questions for each animal, such as, "What color is the...?"</p>
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness. 	<p>In What Layer of the Rainforest Do They Live?</p> <p>Each student still has a card with a picture of an animal. Teacher prompts the student to identify the name of the animal, its colors, and the layer in which it lives in the rainforest. Example: It's a monkey. It's brown and lives in the canopy. Worksheet 3a</p> <p>T: (Asking student)</p> <p style="padding-left: 40px;">你有什麼動物？它是什麼顏色？ 它住在那裡？ 它大不大？ 它長不長？ 它住在那一層？</p>

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Teacher Reflection on Lesson 3 - <i>Who Are My Friends?</i>	
What worked well?	
What did not work well?	
What would I do differently	
Other comments or notes	

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Lesson 4 - Who Is This New Animal?

這個新朋友是誰？

Lesson 4 of 5		Duration: 30 Minutes
<i>Objective</i>	Students can use what they know about elements of a rainforest in order to hypothesize about an imaginary animal that could live in the rainforest.	
<i>Performance Assessment</i>	Students will be able to identify features of animals in the rainforest in order to create their own <i>wild self</i> that could live in the rainforest.	
<i>Expressions</i>	No new vocabulary or expressions	
<i>Materials/Resources</i>	<ul style="list-style-type: none"> ○ Frog puppet ○ Large animal picture card ○ Computers ○ http://www.buildyourwildself.com ○ Paper and markers to build own wild self (if no computers are available) 	

Key Elements	Lesson 4 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> • Object, event or question used to engage students. • Connections facilitated between what students know and can do 	<p>Little Frog Looks for New Friends 小青蛙找新朋友</p> <p>T: 小青蛙你在說什麼啊? (Making sound) “古呱古呱古呱古呱”</p> <p>T: 小青蛙你在說什麼啊? (Puppet whispers to teacher.)</p> <p>T: 小青蛙在找朋友，我們大家一起來幫它，好不好？</p> <p>S: 好！</p> <p>T: 誰是小青蛙的朋友？</p> <p>S: 小花蛇，美洲豹，小猴子，小鸚鵡。</p> <p>T: (Pointing to layers of the rainforest - Worksheet 2b) 它們住在哪兒？</p> <p>S: (Respond appropriately)</p> <p>T: Let's see where they live. 我們來看看它們住在哪兒？</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> • Objects and phenomena are explored. • Hands-on activities, with guidance. 	<p>My Rainforest Journal</p> <p>T: (Distributing students' Rainforest Journals) 你們誰知道什麼是熱帶雨林？我們來說說看，熱帶雨林有什麼特別？</p> <p>(Guide students to explore characteristics of each level of the rainforest as designated in journal.)</p> <p>熱帶雨林有幾層？</p> <p>太陽照得到嗎？</p>

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Key Elements	Lesson 4 Procedures
	<p>常常下雨吗？ 很潮湿吗？ 有没有动物？ 有大动物吗？是什么？ 有小动物吗？是什么？</p> <p>S: (Answer appropriately.)</p> <p>Reference: Forest Floor – little sun, plants, humid, large and small animals Understory – little sun, plants, humid, large and small animals Canopy – more sun, different plants, small animals and birds Emergent – sunny, new growth on tall trees, birds</p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> • Students explain their understanding of concepts and processes. • New concepts and skills are introduced as conceptual clarity and cohesion are sought. 	<p>Do We Have Any New Animals?</p> <p>T: (Lining up the four animals that were found in the rainforest and asking students to describe each animal emphasizing the colors of the animals.) 小青蛙還有沒有別的新朋友？</p> <p>S: 沒有。</p> <p>T: 小青蛙沒有新的朋友，讓我們幫小青蛙的忙，給它新朋友</p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> • Activities allow students to apply concepts in contexts, and build on or extend understanding and skill. 	<p>Build Your Wild Self 創造新動物朋友</p> <p>T: 讓我們給小青蛙一些新朋友。 http://www.buildyourwildself.com (If technology resources are not available, create a wild self-using paper and drawing tools.)</p> <p>T: (Circulating among students as they work) 別忘了告訴我們它叫什麼名字還有它住在那一層。</p> <p>S: (Answer appropriately.)</p>
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> • Students assess their knowledge, skills and abilities. Activities permit evaluation of 	<p>Sharing Our New Animals 介绍我们的新动物朋友</p> <p>T: (The teacher should have created her/his own creature, and then model the description expected of the students.) 我們大家現在來介紹我們的新朋友。(The students tell the name of their creature, tell its colors, and say in which level their creature lives.</p> <p>(IMPORTANT! Be sure to save all wild self images!</p>

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Key Elements	Lesson 4 Procedures
student development and lesson effectiveness.	<p>IMPORTANT! Be sure to save all wild self images! The students may also complete in writing the following statements:</p> <p>我的名字是_____。</p> <p>我住在_____。</p> <p>我有_____和_____顏色。</p> <p>我的朋友是_____。</p>

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Teacher Reflection on Lesson 4 - <i>Who Is This New Animal?</i>	
What worked well?	
What did not work well?	
What would I do differently	
Other comments or notes	

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Lesson 5 - Let's Introduce Our New Friends!

Lesson 5 of 5		Duration: 30 Minutes
<i>Objective</i>	Students will be able to discuss living things in the rainforest.	
<i>Performance Assessment</i>	Students will be able to identify and describe features of animals in the rainforest	
<i>Expressions</i>	No new vocabulary or expressions	
<i>Materials/ Resources</i>	Print out wild thing creatures from previous day Worksheet 3a (from lesson 3) Worksheet 2b enlarged with layers clearly labeled	

Key Elements	Lesson 5 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> Object, event or question used to engage students. Connections facilitated between what students know and can do 	<p>Little Coquí Wants to Meet Our New Friends 小青蛙見新朋友</p> <p>T: (Holding puppet and listening to him whisper in her ear) 小青蛙你在說什麼？ P: (Whispers to teacher) “古呱古呱古呱古呱” T: 小青蛙說它想和我們的新朋友見面。</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> Objects and phenomena are explored. Hands-on activities, with guidance. 	<p>Introduce Our New Friends 介紹我們的新朋友</p> <p>T: (To individual students) 誰是你的新朋友？可不可以介紹給我們大家認識一下？ (The teacher prompts the students to introduce their wild things to Little Coquí.) S1: 這是我的新朋友， (Assessing name of the animals, color, level of rainforest)</p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> Students explain their 	<p>Where Do We Live? 我們住在哪裡</p> <p>T: 誰的新朋友住在地面層？請把它們放在地面層上。 S: (Students carry their “creatures” to appropriate level, Worksheet 2b)</p>

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Key Elements	Lesson 5 Procedures
<p>understanding of concepts and processes.</p> <ul style="list-style-type: none"> • New concepts and skills are introduced as conceptual clarity and cohesion are sought. 	<p>它叫_____，它住在熱帶雨林，它住在_____層，它有_____。</p> <p>It may be good to ask students to bring their new friends and place them on the appropriate layer of the rain forest. In this way, the class will have rich visuals of students' products. If you like this idea, use the classroom arrangements that we introduced in the beginning of this unit. In this way, we bring everything back together. So you might want to go back to reference this activity.</p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> • Activities allow students to apply concepts in contexts, and build on or extend understanding and skill. 	<p>Which is my Favorite Animal?</p> <p>T: (Pointing to the "collage" of images on the board) 我們的新朋友現在都很高興的住在我們的熱帶雨林裏。我們來看看我們的雨林日記。(Referring to My Rainforest Journal)</p> <p>T: 我們的雨林日記裏有什麼？</p> <p>S: 有猴子，蛇，美洲豹和鸚鵡。</p> <p>T: (Showing thinking and personal preference) 你最喜歡是那一個熱帶雨林的動物？我最喜歡是_____。(Demonstrate by hugging etc.)</p> <p>T: (To student) 你最喜歡是哪一個熱帶雨林的動物？</p> <p>S: 鸚鵡/美洲虎/猴子/蛇(etc.)</p> <p>T: 喜歡鸚鵡的人請舉手 (Raise hand to demonstrate)</p> <p>S: (Raise hands)</p>

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Key Elements	Lesson 5 Procedures
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness. 	<p>Which Is OUR Favorite Animal?</p> <p>Teacher divides students into groups to complete the table.</p> <p>T: (Using sample of Worksheet 5a) 現在把我們的名字寫在這裡(Showing where to write names)</p> <p>T: 然後在你最喜歡的動物下面，畫個笑臉 (Show students how to draw smiley on the line of their own names.)</p> <p>Students complete the survey, counting the number of smiley faces for each animal.)</p> <p>T: 我們來看看哪一組有最多笑臉？第一組你們有幾個笑臉？第二組。。。 (Group representative answers which is group favorite. Teacher continues with each group. Teacher using sample Worksheet 5a, put a class smiley under the animals each group calls out to decide on a class favorite.)</p> <p>T: 我們班上最喜歡的動物是_____，如果你也喜歡_____，請舉手。</p> <p>S: Raise hands.</p> <p>T: [Naming student] _____ 是你最喜歡的動物嗎？</p> <p>S: (Answer accordingly.)</p> <p>T: 哪一個動物是我們班上最喜歡的動物？</p> <p>S: _____ [Name animal].</p> <p>T: 很好。 Conclusion</p> <p>T: 小青蛙要回到它的熱帶雨林家，它想要帶著它的新朋友一起回去。我們一起唱首歌，歡送它回家。</p> <p>T: 讓我們跟小青蛙和他的新朋友說謝謝和再見。</p> <p>S: (Led by teacher) 謝謝小青蛙，再見，再見。</p> <p>P: 再見，再見，你們要來熱帶雨林看我們哦。</p>

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Teacher Reflection on Lesson 5 - <i>Let's Introduce Our New Friends!</i>	
What worked well?	
What did not work well?	
What would I do differently	
Other comments or notes	

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